



U.S. Department
of Transportation

National Highway
Traffic Safety
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

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If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

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AUTO SAFETY HOTLINE
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Wash. D.C. Area 366-0123

DYNAMIC SCIENCE, INC.
In-Depth Accident Investigation

Contract DTNH22-94-A-07049
Case DSI-96-SB-02

TECHNICAL SUMMARY

CONTRACTOR: Dynamic Science, Inc.
CONTRACT NUMBER: DTNH22-94-D-27058
CASE NUMBER: Case DSI-96-SB-02

This case was selected due to a nylon coat drawstring becoming entrapped in a school bus hand rail and the wearer being dragged and run over by the school bus.

This school bus incident occurred in the afternoon hours of a winter weekday (1996) on a two-lane, asphalt paved, urban roadway in . The temperature at the time of the incident was estimated to have been between -4° and -1° C (25° and 30° F).

The school bus, a 1992 Volunteer 66 passenger conventional coach, was being driven by a 45 year old male on a regularly scheduled route.

The case subject, a 14 year old female, who was approximately 160 cm (63 in) in height and 52 kg (115 lb) in weight, was one of four passengers on the school bus. She was wearing a dark colored, waist length nylon coat with a drawstring at the lower edge of the garment. The coat, manufactured by Head, was being worn open at the time of this incident.

As the case subject departed the bus, at her regular stop, the right end of her coat's drawstring became entrapped at the point where the lower end of the grab rail attaches to the entrance door body pillar of the bus. When both the case subject's feet were on the ground, the bus driver closed the door and began to drive to his next stop.

The case subject was dragged westbound approximately 32 m (105 ft), at which point, the bus turned into an intersecting north/south roadway. The case subject was dragged an additional 29 m (96 ft) northbound at which time her coat was apparently pulled from her arms and she rolled under the right rear dual wheels of the bus as it negotiated a right turning curve with a radius of 18 m (60 ft).

As the right rear dual wheels of the bus passed over the case subject, the driver and three remaining passengers felt a bump, which they attributed to the bus striking the inner curb of the right turning curve. The bus, without stopping, continued to the next stop where the case subject's coat was found near the door with the drawstring still attached to the grab rail. The driver immediately retraced his route and the case subject was found lying in the roadway near the inner curb of the right turning curve.

The case subject sustained a closed head injury/blunt head trauma (NFS - AIS unknown), a lower left abdominal laceration of more than 20 cm (AIS-2), abrasions (AIS-1) and contusions (AIS-1) of the face, chest and abdomen. She was transported by land to a _____ where she expired 1.5 hours post event.

Two weeks prior to this incident, a NHTSA regional staff member inspected some of the school buses in _____. He found that a number of the buses either had been repaired improperly or not at all. The staff person provided instructions for obtaining the repair parts from the manufacturer and how to install them correctly.

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

**DYNAMIC SCIENCE, INC.
ACCIDENT INVESTIGATION
CASE NUMBER: DSI-96-SB-02**

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News Article
NHTSA NEWS
Recall Notice

ACCIDENT DATA:

Location:	
Area/Type:	Urban/residential
Date/Time:	Winter weekday/Afternoon
Accident Type:	School bus/pedestrian - dragging and run over

INJURY SEVERITY:

Vehicle 1:	Driver, not injured
	3 Occupants, not injured

Pedestrian (case subject):	Dragged subject (Fatal)
-----------------------------------	-------------------------

AMBIENCE:

Viewing Conditions:	No viewing restrictions
Cloud Cover:	Clear
Precipitation:	None
Temperature:	-4 to -1° C (25 to 30° F)
Road Surface:	Dry

ROADWAY:

	ROADWAY 1	ROADWAY 2
Type:	2-lane, undivided	2-lane, undivided
Width:	6.7 m (22.0 ft)	9.1 m (30.0 ft)
Traffic Density:	No other traffic	No other traffic
Median:	None	None
Edge:	Grass	15.2 cm (6 in) raised concrete curbs
Surface:	Asphalt	Asphalt
Reported Defects:	None	None
Co-efficient of Friction:	.75	.75
Vertical Alignment:	2% downgrade	7% upgrade
Horizontal Alignment:	Straight	Right turning curve R = 18.4 m (60.3 ft)

TRAFFIC CONTROLS:

	ROADWAY 1	ROADWAY 2
Signals:	None	None
Signs:	None	None
Speed Limit:	56 Km/h (35 MPH)	40 Km/h (25 MPH)
Markings:	Double, solid yellow painted lines separate E/B and W/B travel lanes.	None

VEHICLES:

VEHICLE 1

Description:	1992 International incomplete - wheel base 646 cm (254 in)
Odometer:	96,223 km (59,792 mi)
Engine:	I6/ 5.9 L Diesel
Vehicle Modifications:	American Transportation Corporation 66 passenger "Ward" conventional school bus body
Tire Condition:	Front - Good 30 to 35% treadwear Rear - Fair 55 to 60% treadwear No abnormal treadwear patterns
Manual Restraints:	2-point, manual lap restraints at all seating positions
Automatic Restraints:	None
Reported Defects:	No mechanical defects reported by police
Cargo:	3 students
Windshield Damage:	None
Fleet:	Private School Transport Corporation
Tow Status:	No damage, towed for inspection impoundment

VEHICLE DAMAGE:

VEHICLE 1

Object Struck:	Dragged and ran over pedestrian - no damage
Event Number:	N/A
CDC:	N/A
Maximum Crush:	N/A

VEHICLE VELOCITY ESTIMATES:

VEHICLE 1

Travel Speed:	Vehicle probably did not exceed 32 Km/h (20 MPH)
Impact Speed: (estimated)	N/A
Total Delta V:	N/A
Longitudinal Delta V:	N/A
Lateral Delta V:	N/A
Energy Dissipation:	N/A

EVENT SEQUENCE:

Pre-Event: This school bus incident occurred in the afternoon hours of a winter weekday on 2 two-lane, asphalt paved, urban/residential roadways in:

The weather was clear, the roadways were dry and free of defects and there were no viewing restrictions. The temperature was estimated to have been between -4 and -1 degrees C (25 to 30 degrees F). There was no other traffic at the time of this incident.

Roadway 1 is a 6.7 m (22.0 ft) undivided, east/west roadway with grass edges, and a speed limit of 56 km/h (35 MPH). The roadway is straight with a negative 2% downgrade for westbound traffic. The estimated co-efficient of friction is .75.

Roadway 1 is intersected at its north edge in a "T" configuration by Roadway 2. Roadway 2 is a 9.1 m (30.0 ft) undivided, north/south roadway edged on the east and west by 15 cm (6 in) raised concrete curbs. At its intersection with Roadway 1, Roadway 2 has a positive 7% upgrade for northbound traffic. Approximately 27 m (90 ft) north of the intersection there is a right turning curve with a radius of 18.4 m (60.3 ft). The estimated co-efficient of friction for Roadway 2 is .75, and the speed limit is 40 km/h (25 MPH).

The vehicle involved in this incident is a 66 passenger conventional school bus manufactured on

The model number is SS2909-66, and the serial number is The bus is painted National Chrome yellow. The bus was built on an incomplete International school bus frame manufactured on 1991 by The VIN for this vehicle is 1HVBKN7NHxxxxxx, and it is equipped with an I6/5.9L diesel engine, automatic transmission and air brakes. At the time of Dynamic Science's on-site inspection, which occurred 6 days post event and within 96 hours of notification, the mileage on the school bus was 96,223 km (59,792 mi).

Vehicle inspection decals are displayed on the lower right quadrant of the right windshield and the lower left quadrant of the left windshield. The dates of inspection could not be read, but the decals appeared to be of the current year. The position of the left decal tended to interfere with the driver's view of the left side convex mirrors (see school bus field-of-view test results).

The 1992 66 passenger conventional school bus has a two step entry/exit stepwell with a two panel, inward opening bi-fold door. With the doors closed the bottom step measures 89.7 cm (35.3 in) in width, but with the doors open, the effective usable width is 60 cm (23.6 in). The stepwell is also equipped with a 4 cm (1.6 in) diameter tubular stainless steel grab rail mounted on the right side of the well as one exits the bus. The lower end of the grab rail is attached to the entrance door body pillar of the bus at a 55° angle and 1 cm. (0.4 in.) from the modesty panel (see figure 3).

The grab rail and modesty panel had not been modified as recommended by _____ in a safety recall notification (dated _____ 93). Due to a lack of local cooperation, it could not be determined why the school grab rail had not been remedied. In addition, for the same reason, it could not be determined who, if anyone, received the pertinent recall notices.

The school bus was being driven by a 45 year old male whose height and weight could not be determined. The driver was seated in a normal, upright position on a pedestal mounted bucket seat which appeared to have been adjusted to, or near, the rearmost seat track position. The driver was properly restrained by the available two-point, manual lap restraint. The bus driver's school bus driving experience and his familiarity with the bus route, could not be determined due to a lack of cooperation from local authorities.

In addition to the driver, there were four student passengers aboard the school bus. These passengers ranged in age from 14 to 16 years of age. The case subject, who was one of the four student passengers, was a 14 year old female who weighed approximately 52 kg (115 lb) and was approximately 160 cm (63 in) in height. The clothing worn by the case occupant was not available for inspection, but her outer garment was a dark colored, down filled, nylon waist length coat that was manufactured by _____ and she was wearing jeans of an unknown color or size (see Police Photos 68-76).

Access to the coat for inspection was denied by the local police, however, a Polaroid photograph of the coat revealed that it had a single drawstring located at the lower edge of the garment and appeared to be a "medium" size. The drawstring appeared to be nylon, approximately 127 cm (50 in) in length, approximately .6 cm (.25 in) in diameter and had a 1 cm (.4 in) bead at each end. There were no cord locks observed on the drawstring. The right side of the coat was "bunched" against the left end of the drawstring and approximately 91 cm (36 in) of the drawstring was pulled from the right cord passageway eyelet. The photograph did not reveal any tears, scuffs or abrasions on the coat fabric.

The driver of the westbound school bus stopped at the driveway of the case subject's home to discharge her at her regular stop.

Event:

The case subject was wearing her coat open, and as she was departing the bus, the right drawstring bead caught, and wedged, in the lower grab rail/entrance door body pillar attachment point angle. The entrapment point is 100 cm (43.3 in) above ground level.

Upon the case subject clearing the bottom step of the stepwell, the driver, apparently without looking into the stepwell or in the right side rear view mirrors, closed the door and immediately began to drive west to his next scheduled stop.

Case: DSI-96-SB-02

The case subject was dragged 32 m (105 ft) west at which point the bus turned right into the intersecting north/south roadway. The entrapped case subject was dragged an additional 29 m (96 ft) at which point she either freed herself from the coat, or it was pulled from her arms and she fell under the bus as it was negotiating the right turning curve.

It appears that the case subject fell on her back with her head toward the inner curb of the right turning curve. The right rear, dual wheels of the bus appear to have impacted her left hip and rolled over her abdomen, chest and head at a 5 to 10 degree angle.

Post-Event: As the school bus was negotiating a right turning curve, the driver and the three remaining occupants felt a bump they attributed to, at the time, the bus striking the inner curb of the right turning curve. Without checking the bus' rearview mirrors, the driver continued to his next scheduled stop. As the student departed the bus at this stop, the case subject's coat was found outside the bus with the drawstring still entrapped at the grab rail.

Upon removing the drawstring from the grab rail, the driver immediately retraced his route and the case subject was found lying in the roadway near the inner curb of the right turning curve.

The case subject sustained a closed head injury/blunt head trauma (NFS - AIS-unknown), a laceration of greater than 20 cm of the lower left abdomen groin area (AIS-2), abrasions (AIS-1) and contusions (AIS-1) of the face, chest and abdomen. She was transported by land from the scene to a local hospital where she expired, approximately 1.5 hours after arrival, due to injuries sustained during this event.

Kinematics:

Due to a lack of residual scene evidence and local government cooperation, the kinematics of the case subject could not be determined. However, based upon the size of Vehicle 1, the relatively short straight-line distances and the lack of visible damage to the case subject's coat, it is probably that the bus did not exceed a speed of 32 km/h (20 MPH) during this event. It is also possible that the case subject did not lose her footing until the coat was removed from her arms, although damage to the coat could not be determined with certainty from the review of the photograph.

Safety Standards:

Vehicle not remedied in accordance with
(NHTSA recall 93V-032.002).

safety recall 93001

1. Entrance door grab rail attachment at body pillar - attachment was not modified as recommended by _____ in paragraph 5 of safety recall notification dated _____ 93

2. Right Front Seat Modesty Panel - Panel position was not modified as recommended by _____ in paragraph 5 of safety recall notification dated _____ 93

Case Considerations:

The following are not violations of the Federal Motor Vehicle Safety Standards, but are deemed to be contributing factors to this incident.

1. Entrance Door/Stepwell: The entry door of the _____ 66 passenger conventional school bus is a two panel, inward opening bi-fold door that measures 89.7 cm (35.3 in) in width. The three step stepwell width measures 55 cm (21.7 in) at bus floor, 65.5 cm (25.8 in) at the front of step 2 and 89.7 cm (35.3 in) at the front of the bottom step. As the bi-fold door opens inward into the stepwell, the effective usable space on the bottom step and step 2 is reduced to 60 cm (23.6 in). Because of the narrowness, clothes and other loose items are easily caught, entangled or wedged into the projecting handrail especially when passengers are wearing bulky, cold weather clothing (see Figures 2 and 3).
2. Coat Drawstring: The decorative 1 cm (.4 in) bead at the right end of the lower drawstring of the case subject's coat contributed to the entrapment. The beads appeared to have been constructed of plastic, or hard nylon, and appeared to be virtually unbreakable. The drawstring appears to have been approximately .6 cm (.25 in) in diameter and constructed of a cord of unknown composition wrapped with nylon. This cord, too, is virtually unbreakable.

In this incident, as in earlier incidents, the strength of this type of cord does not allow a subject to break free when accidentally entrapped by objects.
3. Rearview mirrors: The case school bus was properly equipped with rectangular and convex rearview mirrors, but the driver did not have them properly adjusted and could not have been able to observe the case subject being dragged by his bus (see school bus field-of-view test).

SCHOOL BUS FIELD-OF-VIEW TEST:

This school bus field-of-view test was conducted by Dynamic Science, Inc. six days post event using orange colored test cylinders measuring 30.5 cm (12 in) in height and 30.5 cm (12 in) in diameter. The test cylinders were positioned as depicted in Figure 1.

This test was conducted on a 1992 Ward Volunteer 66 passenger conventional school bus with two standard rectangular rear view mirrors mounted on the left and right "A" pillars. In addition, four convex cross front and side view mirrors were mounted on the left and right front

fenders. The convex mirrors measured 20 cm (8 in) in diameter.

According to police investigators, the bus had been impounded from the scene of the incident and the mirrors, and driver's seat, had not been adjusted, or tampered with, since the time of impoundment.

The test was conducted from the driver's seat, which was adjusted to the rearmost seat track position (see Photo 39). The tester was seated, facing forward, in a normal, upright seated position.

Forward view (no mirrors) - Test cylinders A, B and C were visible. Test cylinders D through I could not be seen (see Photo 33).

Left side rectangular rearview mirror - Only test cylinder M was visible, test cylinders J and L could not be seen (photos 30 and 31 - note position of inspection decal).

Left side view convex mirror - Test cylinders J and L were visible. Test cylinder M could not be seen (Photos 28 and 29).

Left cross front view convex mirror - Test cylinders H and I were visible. Test cylinders A through G could not be seen (see Photos 28 and 29).

Right side rectangular rearview mirror - Test cylinders K, N, O and P could not be seen (photos 28 and 29).

Right side view convex mirror - Test cylinders N, O and P were visible. Test cylinder K could not be seen (Photos 34 and 35).

Right cross front view convex mirror - Test cylinders C, F and E were visible. Test cylinders A, B, D, G, H and I could not be seen (see Photos 34 and 35).

The test cylinders D, K and G were not visible in any mirror or frontal view in this field-of-view test.

In addition to the above referenced photos, the field-of-view test was recorded on video tape which accompanies this report.

DRIVER AND OTHER OCCUPANTS:

VEHICLE 1

DRIVER

Age/Sex:	45 year old/Male
Seated Position:	Left Front
Seat Type:	Pedestal mounted bucket
Height:	Unknown
Weight:	Unknown
Occupation:	School bus driver
Pre-existing Medical Condition:	None known
Alcohol Involvement:	None
Drug Involvement:	None
Driving Experience:	Unknown
Body Posture:	Normal, upright seated position
Hand Position:	Both hands on steering wheel rim at unknown "o'clock" positions
Foot Position:	Left foot on floor/toe pan, right foot on accelerator pedal
Restraint Usage:	2-point, manual lap restraint
Additional Occupants:	3 (not listed - not involved in incident)

PEDESTRIAN:

	Pedestrian (case subject)
Age/Sex:	14 year old/Female
Seated Position:	Outside of bus
Seat Type:	N/A
Height:	approx. 160 cm (63 in)
Weight:	approx. 52 kg (115 lb)
Occupation:	Student
Pre-existing Medical Condition:	None known
Alcohol Involvement:	None
Driving Experience:	N/A
Body Posture:	Standing (erect)
Hand Position:	Unknown
Foot Position:	Both feet on ground
Restraint Usage:	N/A

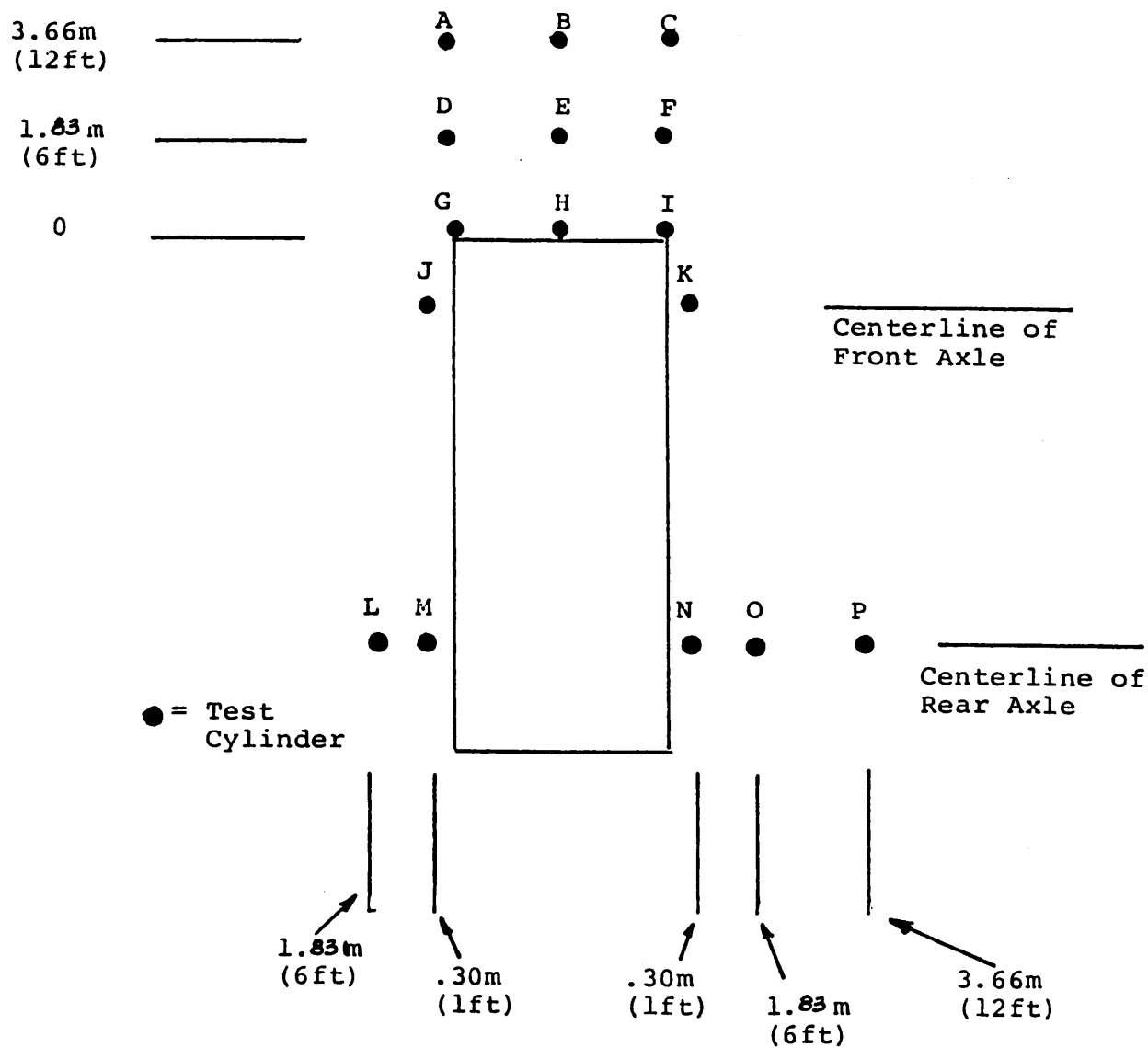
INJURIES:

Vehicle 1

	<u>INJURY</u>	<u>OIC CODE</u>	<u>ICD-9</u>	<u>SOURCE</u>
DRIVER:	Not injured			
3 UNINVOLVED OCCUPANTS:	Not injured			

INJURIES:**Pedestrian (case subject):**

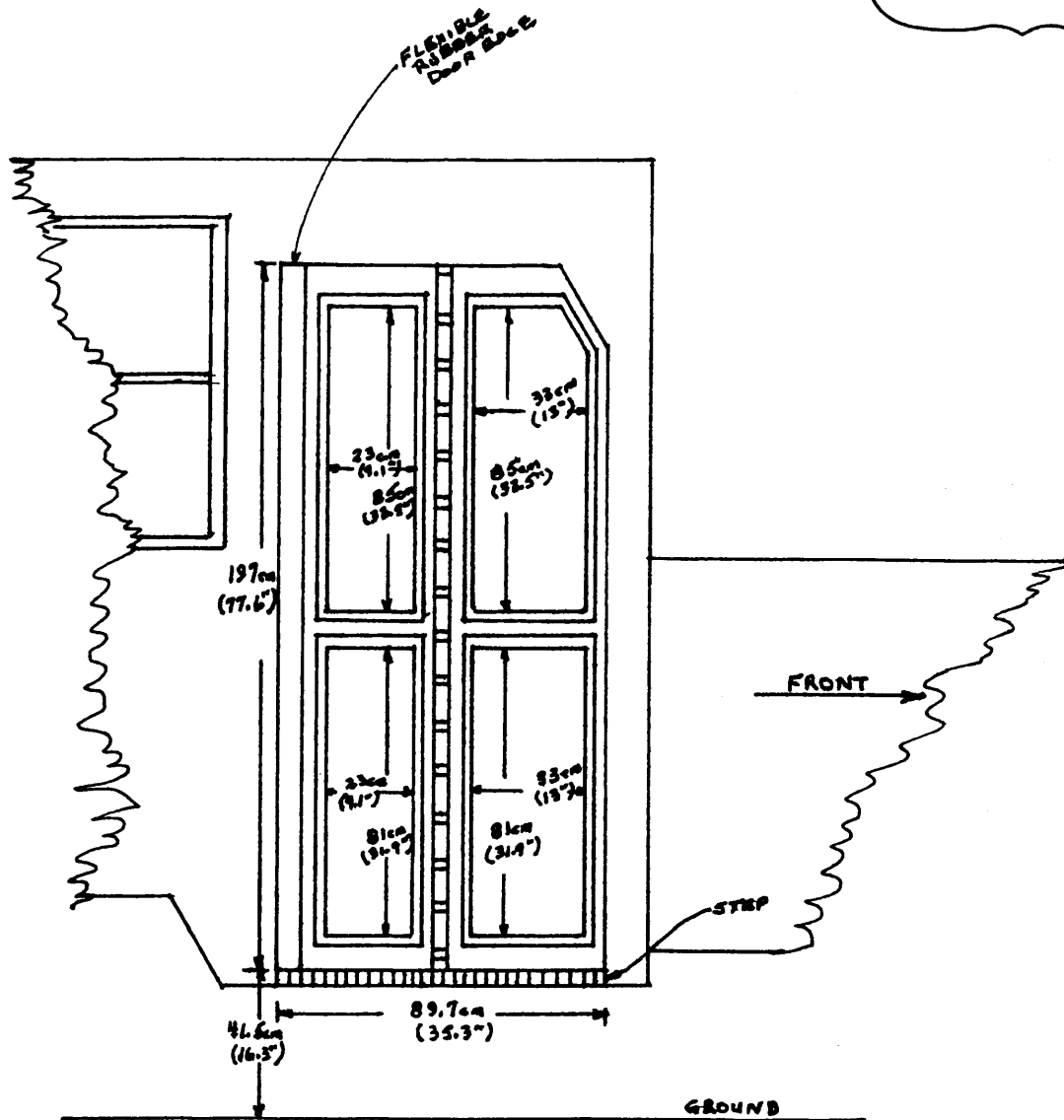
<u>INJURY</u>	<u>OIC/AIS CODE</u>	<u>ICD-9</u>	<u>SOURCE</u>
closed head injury/Blunt head Trauma (NFS)	8115099.7,05121100	854.0	Right rear dual wheels
Laceration, lower left abdomen >20 cm	8590604.2,25121100	879.3	Right rear dual wheels
Abrasions, Face	8290202.1,05121100	910.0	Right rear dual wheels
Contusions, Face	8290402.1,05121100	920	Right rear dual wheels
Abrasions, Chest	8490202.1,05121100	911.0	Right rear dual wheels
Contusions, Chest	8490402.1,05121100	922.1	Right rear dual wheels
Abrasions, Abdomen	8590202.1,05121100	911.0	Right rear dual wheels
Contusions, Abdomen	8590402.1,05121100	922.2	Right rear dual wheels



LOCATION OF TEST CYLINDERS FOR SCHOOL BUS FIELD-OF-VIEW TEST

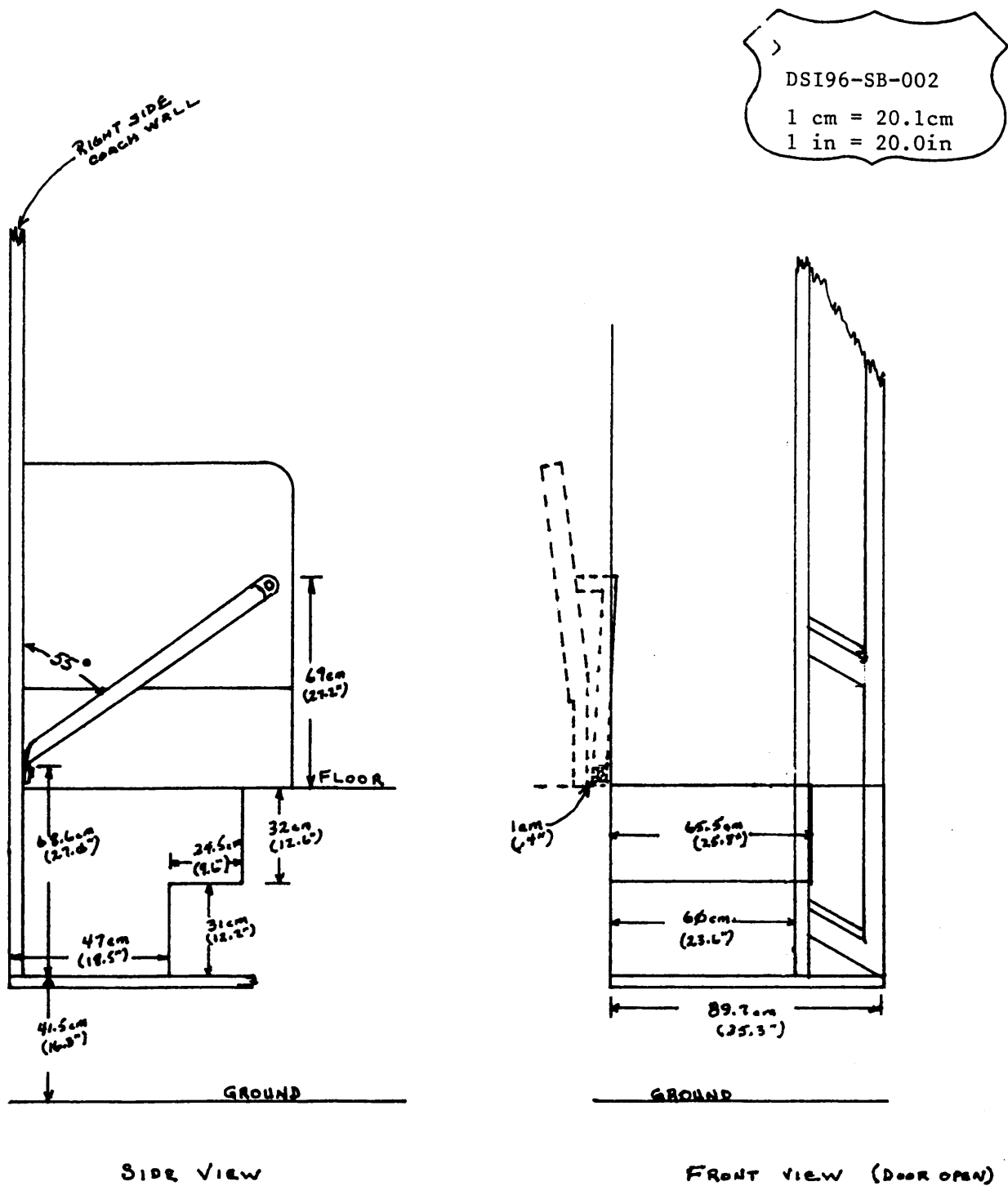
Figure 1

DSI96-SB-002
 1 cm = 20.1cm
 1 in = 20.0in



BUS DOOR, CLOSED - EXTERIOR VIEW

Figure 2



STEP WELL

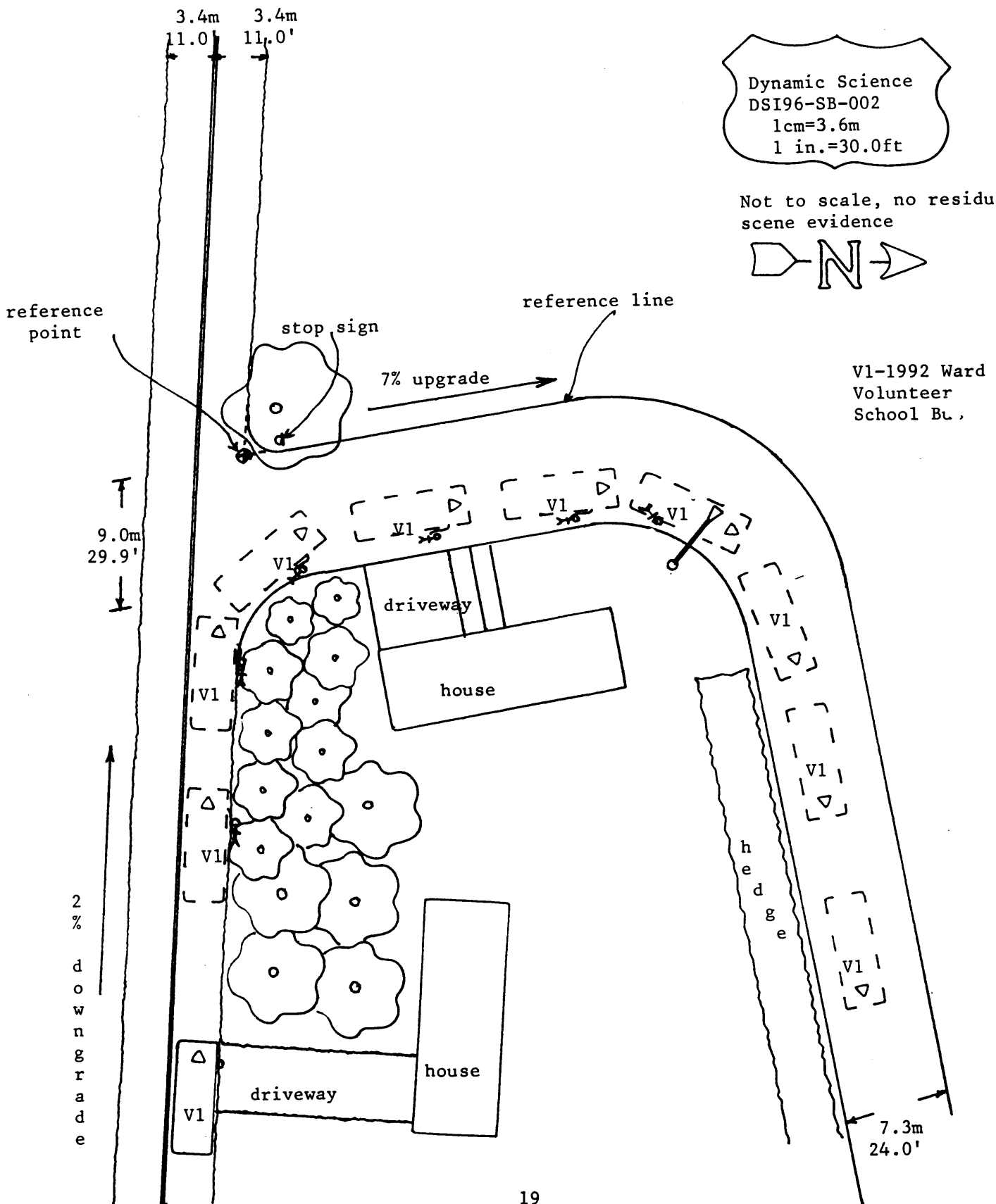
Figure 3

List of Abbreviations

FT	Feet
IN	Inches
AME	After Market Equipment
AIS	Abbreviated Injury Scale
CCW	Counterclockwise
CDC	Collision Deformation Classificaification
C/F	Center Front
CG	Center of Gravity
CM	Centimeter
C/R	Center Rear
CW	Clockwise
E, EB	East, Eastbound
FRP	Final Rest Position
KG	Kilogram
KM/H	Kilometers per Hour
L/F	Left Front
L/R	Left Rear
M	Meter
N, NB	North, Northbound
NE	Northeast
NW	Northwest
OEM	Original Equipment Manufacturer
PDOF	Principal Direction of Force
POI	Point of Impact
R	Radius of Curvature
R/F	Right front
RL	Reference Line
RP	Reference Point
R/R	Right rear
S, SB	South, Southbound
SE	Southeast
SW	Southwest
V1	Vehicle 1
W, WB	West, Westbound

Dynamic Science
DSI96-SB-002
1cm=3.6m
1 in.=30.0ft

Not to scale, no residual
scene evidence



V1-1992 Ward
Volunteer
School Bu.

SCENE MEASUREMENTS**Case Number DSI-96-SB-02**

BEST AVAILABLE

Reference Point: N edge, E/W road, W edge, N/S road - extended

Reference Line: W edge N/S of roadway

DATA POINT	DISTANCE AND DIRECTION FROM REFERENCE POINT	DISTANCE AND DIRECTION FROM REFERENCE LINE
N edge E/W roadway	0	0
Double, yellow center line	3.3 m (10.9 ft) S	0
S edge E/W roadway	6.7 m (22 ft) S	0
W edge N/S roadway	15.2 m (50 ft) N	0
E edge N/S roadway	15.2 m (50 ft) N	9.0 m (29.9 ft) E
Approximate point of occupant discharge (drag to begin)	0	42.7 m (140 ft) E
Approximate FRP case subject (drag ends)	29.3 m (96 ft) N	9.1 m (30 ft) E

PHOTO INDEX

BEST AVAILABLE

Case No. DSI-96-SB-02

PHOTO NO.	VEHICLE NO.	ORIENTATION	SUBJECT MATTER
1		E	Reverse drag path from start of drag
2-5		N	Drag path
6-7		N	Victims approximate FRP
8-11		S	Reverse drag path
12-27		CCW	Exterior views of Vehicle 1 & cone placements for Field-of-view tests. Photos 24 & 25 - R/R dual and fuel tank protection Photo 26 - Step well
28-29	V1	left	Left cross front and side view convex mirrors, field of view test
30-31	V1	left	Left side rectangular rear view mirror, field of view test
32-33	V1	front	Front view of Field-of-view test - no mirrors
34-35	V1	right	Right cross front and side view convex mirrors, field of view test
36-37	V1	right	Right side rectangular rear view mirror, field of view test
38-40	V1	---	Driver's seat, seat adjustment and door opener/opener lock
41-43	V1	---	Front bulk head and manufacturer's plates
44-47	V1	---	Front door/step well
48-59	V1	---	Hand rail/step well Photo 49 - driver's view of stepwell/handrail





SB02-005



SB02-006



SB02-007



SB02-008



SB02-009



SB02-010



SB02-011



SB02-012





SB02-015



SB02-016



SB02-017



SB02-018



SB02-019



SB02-020









SB02-025



SB02-026

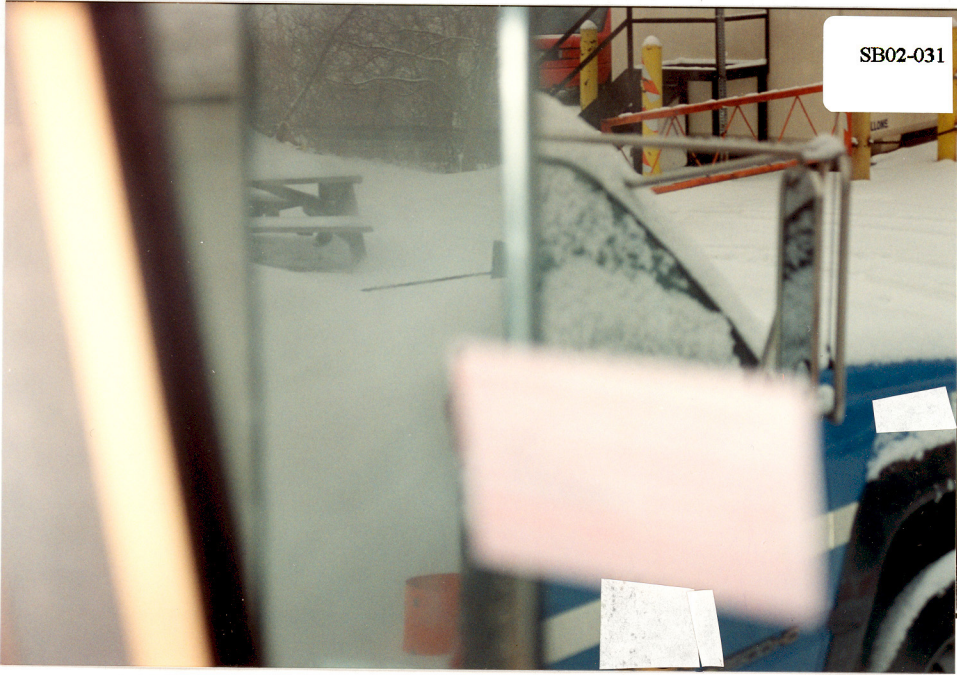


SB02-029



SB02-030





SB02-033



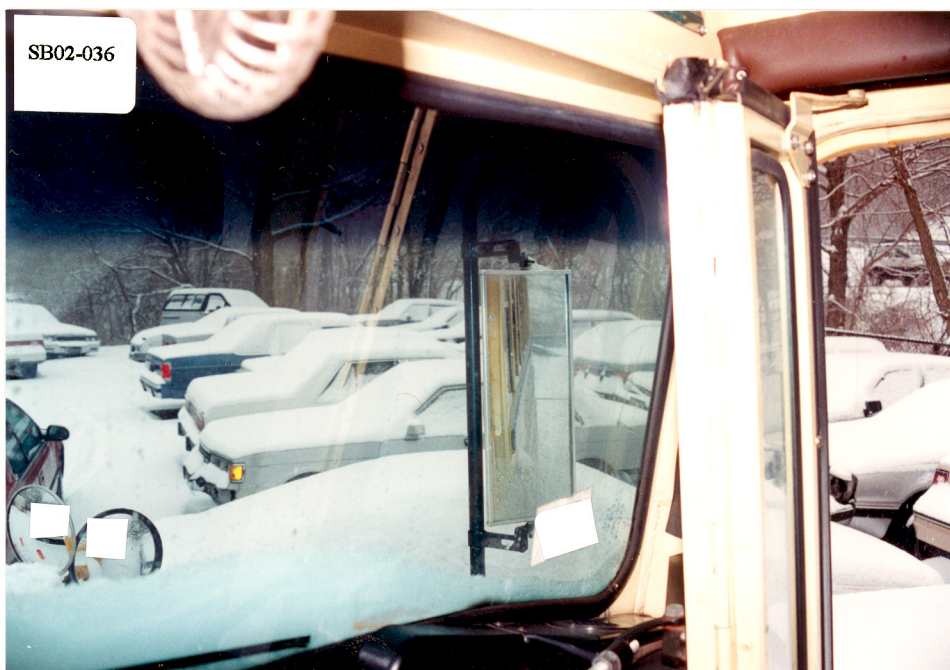
SB02-034



SB02-035



SB02-036

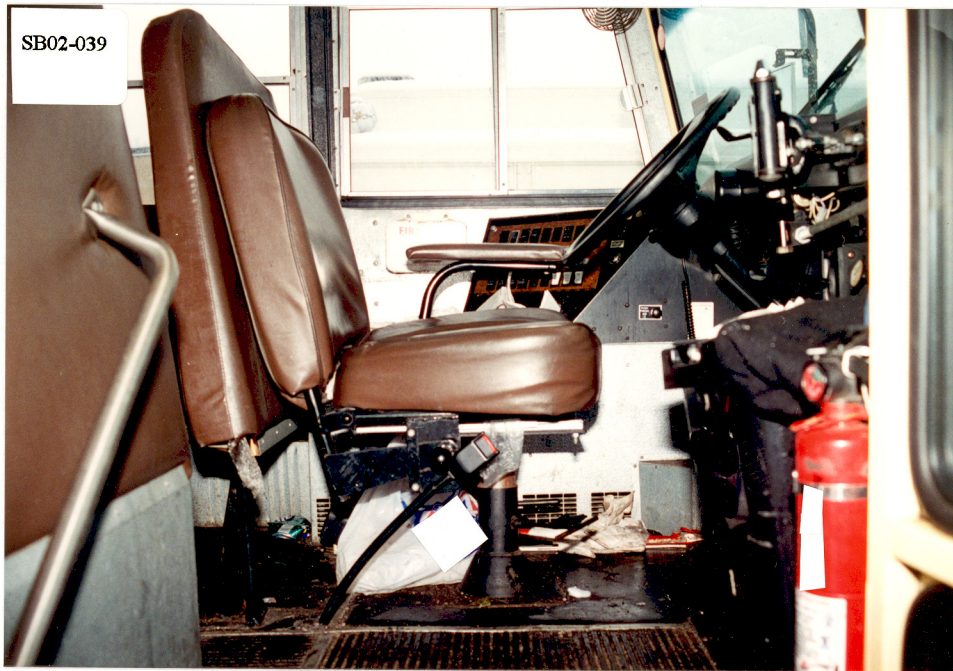


SB02-037

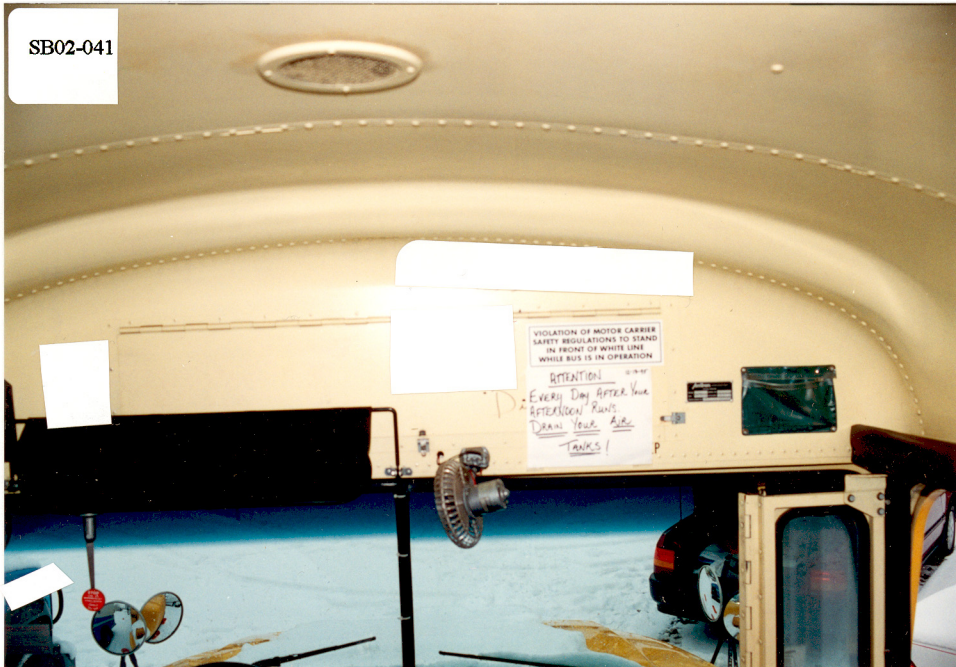


SB02-038





SB02-041



SB02-042

MANUFACTURE

DATE OF MANUFACTURE MO. YR.

INCOMPLETE VEHICLE MANUFACTURED BY:

NAVISTAR

DATE INC. VEH. MFD. 91 YR.

GVWR 29000

GAWR FRONT 10000 WITH

TIRES 10x20 PLY 12

PSI COLD 85

RIMS 7.5 AXLE SINGLE

GAWR REAR 19000

TIRES 10x20 PLY 12

PSI COLD 75

RIMS 7.5 AXLE DUAL

THIS VEHICLE CONFORMS TO ALL
APPLICABLE FEDERAL MOTOR
VEHICLE SAFETY STANDARDS IN
EFFECT ON: MO. YR.

SB02-043



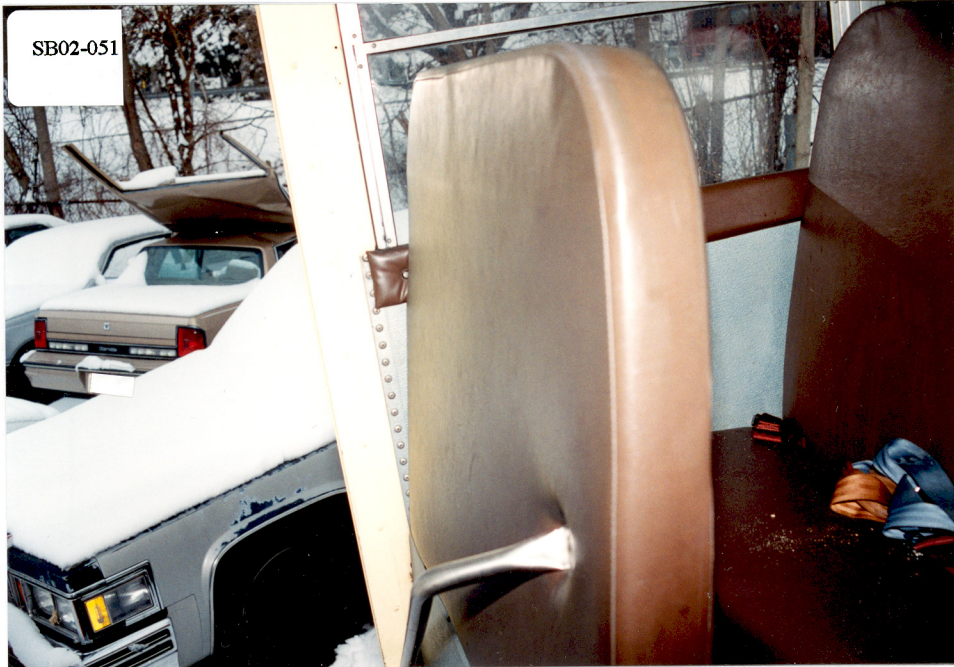
SB02-044













SB02-055



SB02-056



SB02-057



SB02-058



SB02-059



SELECTED POLICE PHOTOS

Case No. DSI-96-SB-02

PHOTO NO.	SUBJECT MATTER
60-61	Scene - FRP, books and notebook - case subject
62-63	Vehicle 1, possible pedestrian contacts
64	Vehicle 1, right rear dual wheel
65	Vehicle 1, R/F windshield, Vehicle inspection and registration decals
66	Vehicle 1, stepwell, grab rail and modesty panel
67	Case subject's notebook with abrasion and tread mark
68	Jeans worn by case subject
69	Case subject's coat - front view
70	Case subject's coat - label
71-72	Case subject's coat - back view
73	Case subject's coat - drawstring pucker, back view
74	Case subject's coat - drawstring, right side
75-76	Case subject's coat - drawstring and drawstring end bead

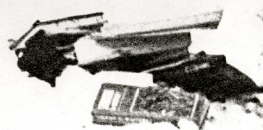
SB02-060

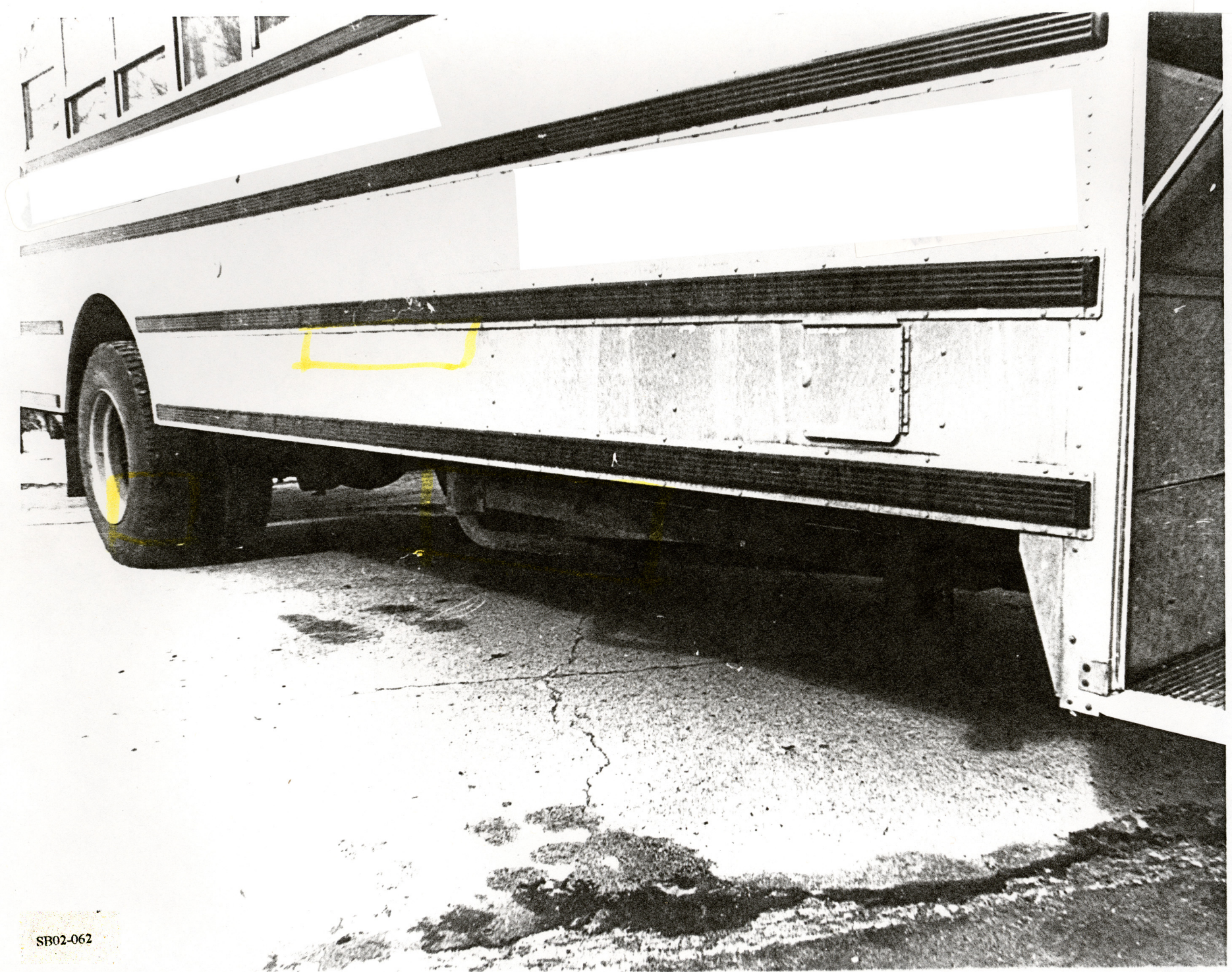


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SB02-061





SB02-062



SB02-063

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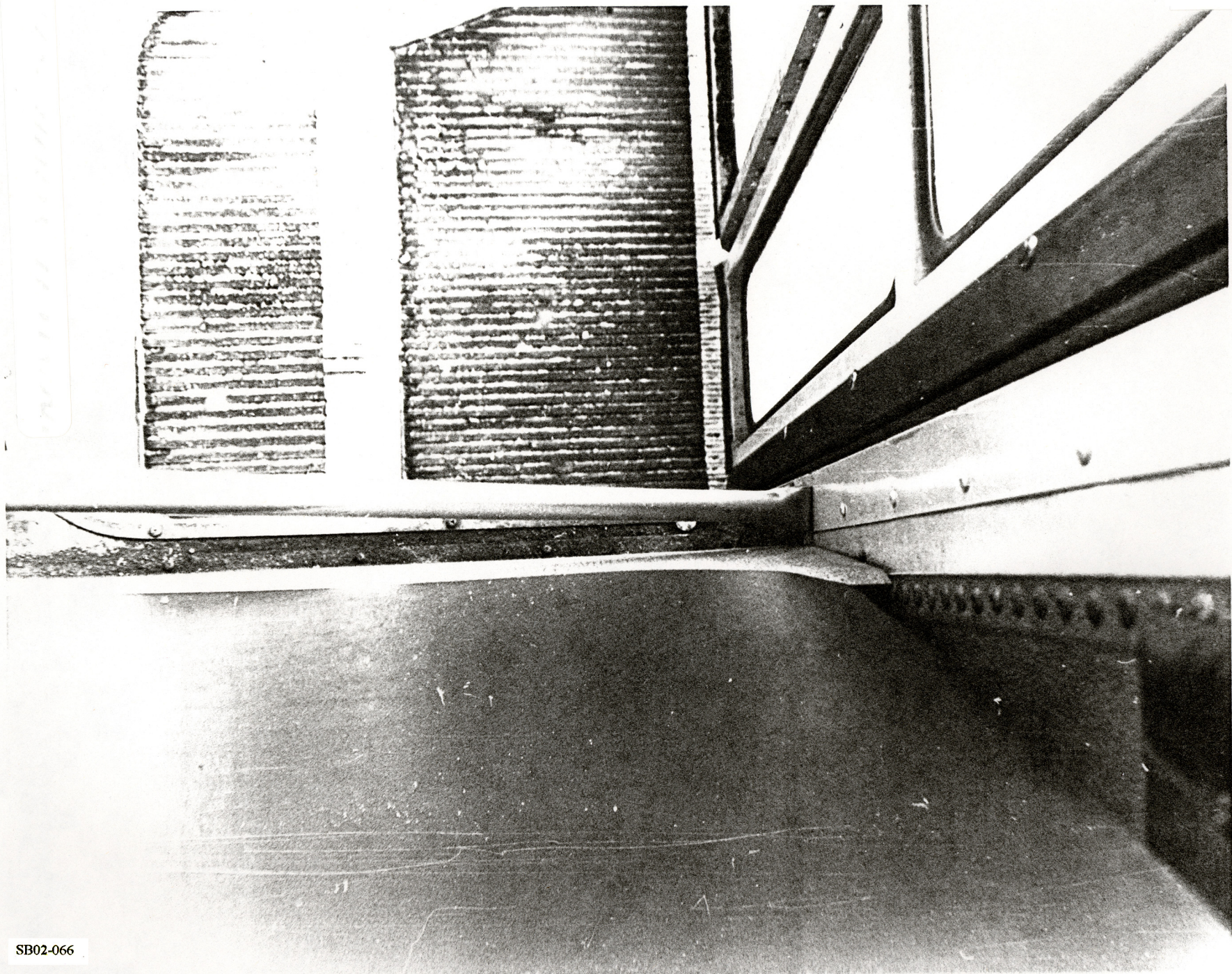
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SB02-064

SB02-065





SB02-066

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SB02-067



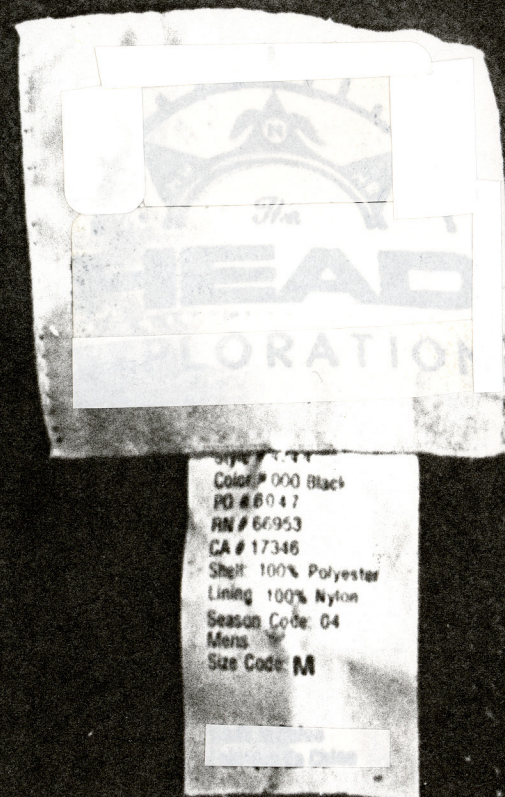
SB02-068



SB02-069

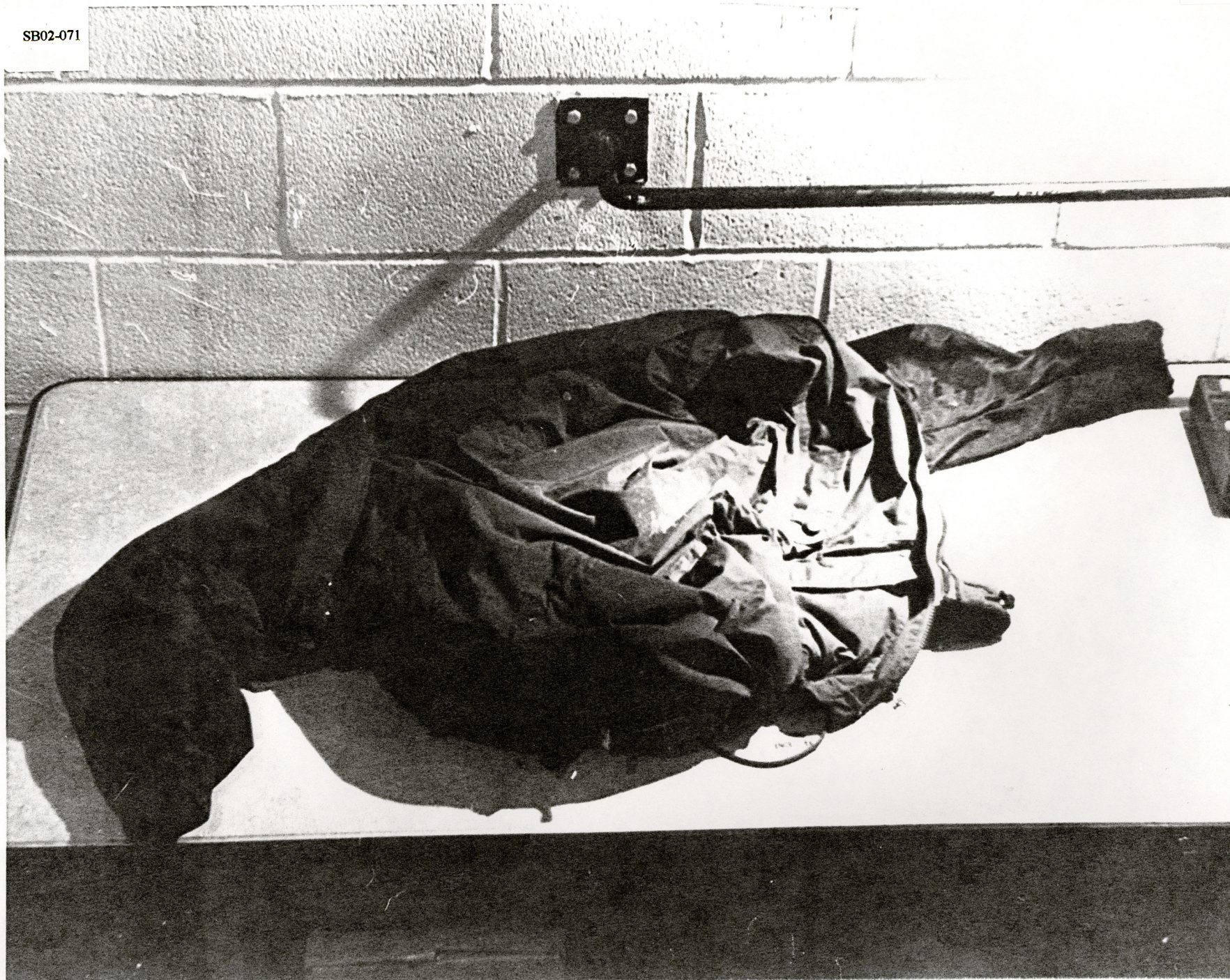


SB02-070



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SB02-071



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SB02-072

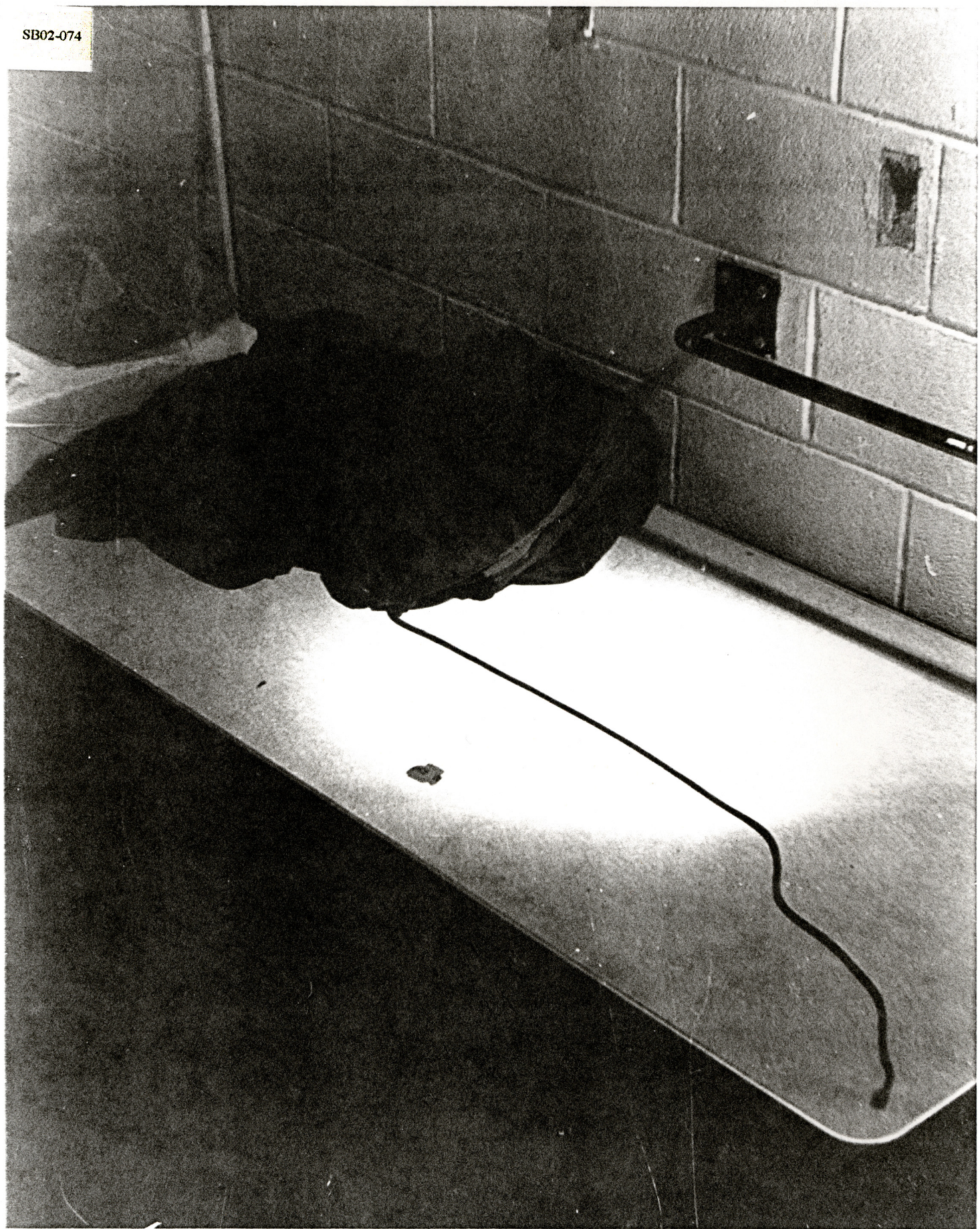


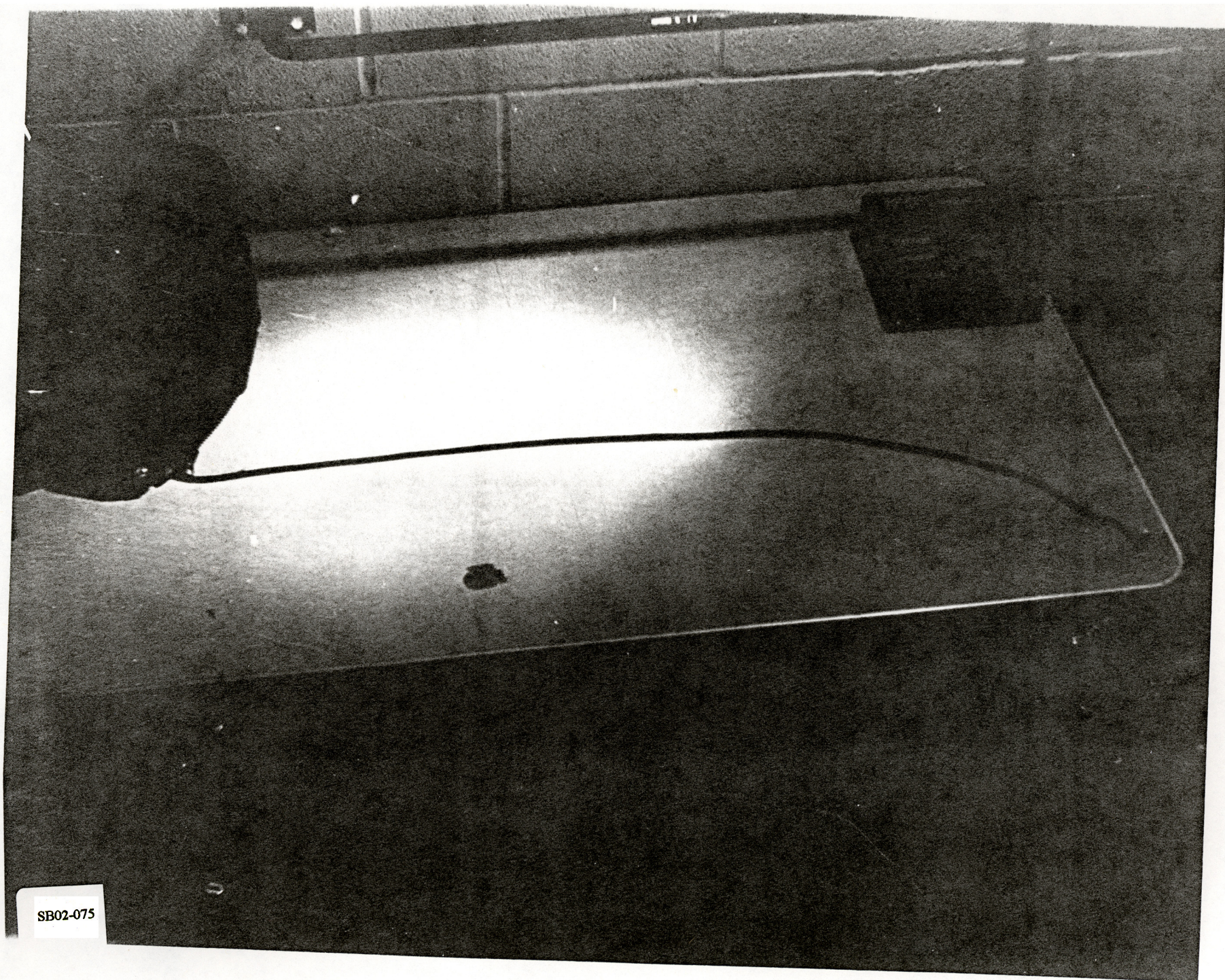
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SB02-073

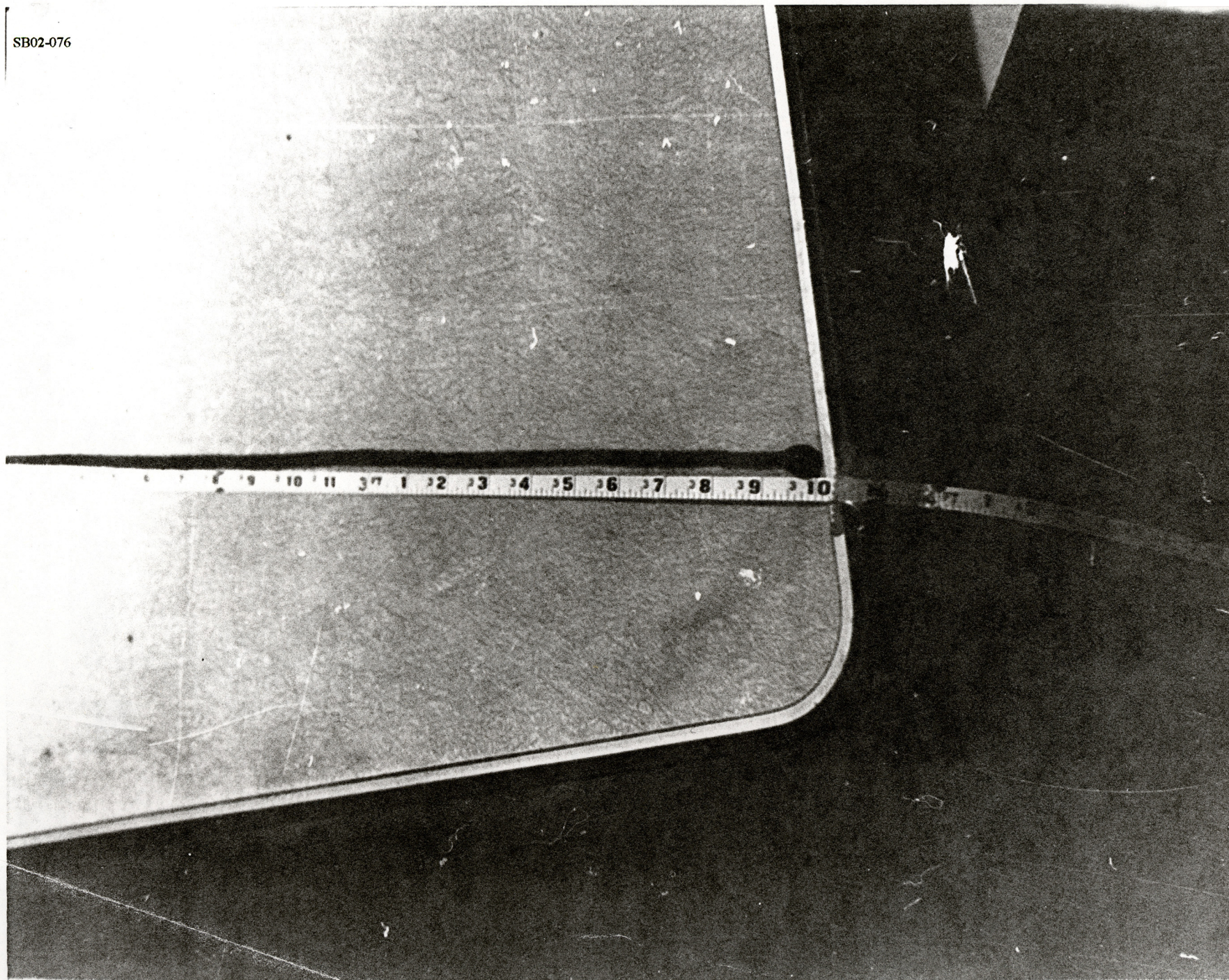
SB02-074





SB02-075

SB02-076



Girl killed by school bus

14-year-old found bleeding in road after getting off bus

A 14-year-old girl was found unconscious and bleeding in the roadway on Lane, police said. The girl was hit by the school bus she just gotten off near her home, police said.

The girl was pronounced dead at County Medical Center at 4:37 p.m., according to the County Medical Examiner's Office.

The accident occurred about 3 p.m. on Lane, about a tenth of a mile from home.

The girl was found unconscious and bleeding in the roadway on Lane, police said.

Police would not say where the bus was when the girl was found.

An officer, said her son, was the first to call for help after he turned onto Lane in his car and saw the body in the road.

"He didn't know what hap-

pened at first," she said. "After he got someone to call 911, he saw the bus coming back down the road and realized what must have happened."

The girl was treated by police paramedics and taken by a police ambulance to the center.

The identity of the bus driver is being withheld because he is considered a witness to the accident, said a spokesman for the County District Attorney's Office.

"Anyone who saw anything to do with the accident is considered a witness," said. He said that it was too early in the investigation to determine whether criminal charges would be filed.

The bus is owned by _____ of _____

Upon hearing about the accident, schools superintendent and high school principal, called mother. _____ met mother at the medical center where they both learned that the girl had died.

No one answered the door at the home last night.

A ninth-grader at the high school, _____ came to the school district two years ago, _____ said.

"She was a terrific kid who was well-adjusted to the high school and liked by all," he said.

_____ contacted school guidance counselors last night to notify them of the death. He asked the counselors to contact the closest friends (immediately to offer some comfort).

"She had a good number of friends," he said.

Friends of _____ were too distraught to talk about the girl when they were reached last night.



U.S. Department of
Transportation

1993

News:

Office of the Assistant Secretary for Public Affairs
Washington, D.C. 20590

FOR IMMEDIATE RELEASE

1993

NHTSA 93

Contact:

Tel. No.:

NHTSA WARNS OF SCHOOL BUS DANGERS INVOLVING SNAGGED CLOTHING

The National Highway Traffic Safety Administration (NHTSA) today warned school bus drivers, parents and children about the dangers of children being dragged by the bus after their clothing is snagged while exiting.

During the past year, the agency has learned of several serious incidents, including two fatalities, involving full-size school buses. In each incident, a child leaving the bus snagged an article of clothing or part of a bookbag in the handrail on the right side of the stairway to the bus entrance door. The door was closed before the child had a chance to re-enter the bus to free the clothing or bag. The bus then dragged the victim as it pulled away from the stop.

NHTSA has notified all the state directors of pupil transportation of this potential danger to school children. Officials were asked to make drivers aware of these incidents and to be especially cautious, particularly at stops where there are no adults to help supervise the off-loading of students. The safety agency said that caution is particularly important during winter months when children wear bulky clothing which can be snagged more easily.

In addition, NHTSA requested detailed information from the major school bus manufacturers to determine the scope of this problem and how to prevent it. The agency has opened investigations of buses constructed by _____ and _____ to determine if there is a safety defect.

NHTSA stressed that the overall safety record of school buses is excellent. Most serious incidents occur when children are approaching or leaving the bus, and are struck by the bus or by another vehicle. Each school day, about 22 million children are transported more than 18 million miles in school buses.

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1993

Subject: Safety Recall

Gentlemen:

Attached is a vehicle defect initial information report which is submitted pursuant to Parts 573.5, 151 (1), and 151 (1-6) of the National Traffic and Motor Vehicle Safety Act.

The undersigned should be contacted for any additional information regarding this recall.

Very truly yours,

Director of Engineering

Enclosures

XC:

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VEHICLE NON-COMPLIANCE
INITIAL INFORMATION REPORT

Date: 1993

Recall No.

Make	Model	Model Year	No. of Vehicles	Manufacturing Dates From	Through	Other Identification Necessary to Describe Vehicle
WARD	SS1506-3306 Volunteer	1980-1993	To be determined (est. 45K)	/80	/93	School bus
WARD	SFC2206-3803 Patriot	1983-1990	To be determined (est. 1.5K)	'83	/90	School bus

Total number of vehicles: to be determined Percent potentially containing defect: 100%
no IX estimate

VEHICLE NON-COMPLIANCE
INITIAL INFORMATION REPORT

No.

1. DESCRIPTION OF DEFECT: Certain and school buses have a small crevice at the attachment point of the entrance door grab rail to the entrance door body pillar. Also, the space between the grab rail and the modesty panel (if so equipped) may be less than 1 1/2".
2. RISK TO MOTOR VEHICLE SAFETY: The possibility exists for certain clothing articles such as draw strings to become lodged in these areas as a person is exiting the bus. If the driver is unaware of this situation, the entrance door may be closed, capturing the item in the door.
3. CHRONOLOGY OF PRINCIPLE EVENTS WHICH LED TO DETERMINATION OF DEFECT:
1993 we were contacted by about the potential problem on buses and buses manufactured by other companies. A letter from (NEF-121jah, PE93-008) was received on 1993 with a copy of a letter from stating that on 1987 a child was injured due to a draw string being caught on a bus. We are aware of no other incidents or claims of this nature relative to or buses.
4. MEASURES TO BE TAKEN TO REPAIR VEHICLE: Owners will be notified of the defect and a repair kit will be offered free of charge. The owners will be advised that they may make the modifications or contact an dealer for assistance.
5. REMEDY EXPENSE: will supply parts at no charge and reimburse owners for labor upon request.
6. EARLIEST DATE DEFECT TO BE REMEDIED: To be determined.
7. PUBLIC ANNOUNCEMENT DATE: To be determined.
8. OWNER LETTER AND DEALER COMMUNICATIONS To follow when available.

676
2/14/93

1993

SAFETY RECALL

Dear Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. has determined that a defect in the handrail system that relates to motor vehicle safety exists on certain school buses.

The buses involved are and (Volunteer) and model school buses built from '86 through 93. The vehicle identified on the enclosed card fits this description and our records show you as owner of this vehicle.

REASON FOR THIS RECALL

If you are the owner, this is to notify you that your bus may have a defect in the attachment of the handrail located inside rear of the entrance door. A small gap may exist at the attachment of the grabrail to the wall. Also, insufficient clearance may exist between the modesty panel (located on the bottom of the crash barrier) and the grabrail. Certain small objects may be caught in these areas such as coat tie strings. Should this happen, and the driver is unaware of the situation, the person may exit the bus with the string caught in the crevice. The door may be closed and the bus moved causing possible injury to the passenger.

As a precaution, until your vehicle is inspected and repaired, you should inform all drivers to be aware of this potential problem.

When you return the enclosed postage paid reply card, an inspection and repair kit will be sent to you. The remedy will be to install a rubber pad on the grabrail where it attaches to the wall and to move the modesty panel to the rear far enough to attain 1 1/2" of clearance with the grabrail. You may make these repairs yourself or take your vehicle to your dealer on a mutually agreed upon service date. If he does not remedy this condition without charge on or within 5 days, you can obtain assistance by calling Customer Service at the toll free number listed below. You may also wish to submit a

(Over)

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complaint to the Administrator, National Highway Traffic Safety Administration,
or call the toll free Auto Safety Hot Line
at _____ area residents may call _____ if you believe
that _____ or its dealer has failed to remedy the non-compliance without
charge, within a reasonable time, which is no longer than 60 days after you first tender to
obtain repair.

In the event you no longer own the vehicle described, please fill in the requested
information on the enclosed postage-paid card and return it to us. This will enable us to
notify the correct owner.

If you have questions concerning this notification, please contact an authorized
school bus body dealer. You may locate your nearest _____ dealer by calling
Or, you may call our _____ at _____

Sincerely,

RECALL NOTIFICATION
REPLY CARD

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VEHICLE TYPE SCHOOL BUS
RECALL NO. _____
BODY SERIAL NO. _____

If you no longer own
the vehicle identified,
please indicate to
whom you sold the
vehicle by filling out
the change of owner-
ship box.

Change of Ownership Vehicle Sold To:

Name

Street or P.O. Box

City, State, & Zip

Please return this card promptly to the address shown
on the reverse side.

Check One

- ☐ Please send a repair kit &
instructions, "no charge", my
correct address is shown below
- ☐ I will arrange for repairs with
my local Amtron dealer.
- ☐ Vehicle scrapped.
- ☐ I have never owned the vehicle
listed.

Owner/School

Street or P.O. Box

City, State, & Zip

Authorized signature date
(owner)

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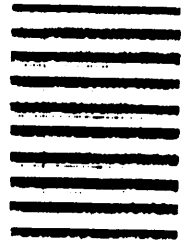
BUSINESS REPLY MAIL

FIRST CLASS

PERMIT NO.

POSTAGE WILL BE PAID BY ADDRESSEE

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



ATTENTION:

